CLAIMS

1. A method of generating synchronized triangular wave signals offset in phase, comprising steps of:

generating at least one slave triangular wave signal variable between an upper limit voltage and a lower limit voltage by charging or discharging associated capacitor;

generating a detection signal when a master triangular wave signal reaches a predetermined levels; and

promptly charging or discharging said associated capacitors in response to said detection signal so as to bring the slave triangular wave signal associated with said capacitor to said upper or lower limit voltage such that said at lease one slave triangular wave signal is synchronized to be offset in phase relative to said master triangular wave signal by a predetermined phase offset.

2. A method of generating synchronized triangular wave signals offset in phase, comprising steps of:

generating a first through an Nth ($N \geq 2$) triangular wave signals that are variable between an upper limit voltage and a lower limit voltage by charging or discharging associated first through Nth capacitors;

promptly charging or discharging the (J+1)st capacitor ($1 \leq J \leq N-1$) when the Jth triangular wave signal

reaches a predetermined level to bring said (J+1)st triangular wave signal to said upper or lower limit voltage, whereby said first through Nth triangular wave signals are synchronized to be sequentially offset in phase by predetermined phase offset.

3. A method of generating synchronized triangular wave signals offset in phase, comprising steps of:

generating a first through an Nth ($N \geq 2$) triangular wave signals that are variable between an upper limit voltage and a lower limit voltage by charging or discharging associated first through Nth capacitors;

promptly charging or discharging the second through Nth capacitors when the first triangular wave signal reaches the predetermined voltages respectively set for the second through Nth triangular wave signals to bring said second through Nth triangular wave signals to said upper or lower limit voltage, whereby said second through Nth triangular wave signals are synchronized to be offset in phase by predetermined phase angles relative to said first triangular wave signal.

4. A system for generating synchronized triangular wave signals offset in phase, comprising:

a first through an Nth electronic devices ($N \geq 2$) each including a triangular wave signal generation circuit for generating a triangular wave signal that

varies between an upper limit voltage and a lower limit voltage by charging or discharging an associated capacitor; and

a first through an (N-1)st phase synchronization circuits each including

a comparison-detection circuit receiving as a master triangular wave signal a triangular wave signal from one of said N electronic devices (master electronic device) and comparing said master triangular wave signal with a predetermined threshold voltage to generate a detection signal when said master triangular wave signal has reached said predetermined threshold voltage; and

a switch for promptly charging or discharging the capacitor of one of said electronic devices, other than said master electronic device, generating a triangular wave signal as a slave triangular wave signal in response to said comparison signal received from said comparison-detection circuit to bring the level of said slave triangular wave signal to said upper or lower limit voltage, whereby said slave triangular signal is synchronized to be offset in phase by a predetermined phase angle relative to said master triangular wave signal.

5. The system according to claim 4, wherein the Kth triangular wave signal ($2 \leq K \leq N$) is synchronized by the

(K-1)st phase synchronization circuit to be offset in phase relative to the Kth triangular wave signal by a predetermined phase angle, thereby synchronizing the first through Nth triangular wave signals in sequence to be offset in phase.

6. The system according to claim 5, wherein

said first through (N-1)st phase synchronization circuits are supplied with a common threshold voltage; and

said first through Nth triangular wave signals are synchronized to be sequentially offset in phase at equal intervals.

7. The system according to claim 4, wherein the triangular wave signal generated by the Kth electronic device ($2 \leq K \leq N$) is synchronized by the (K-1)st phase synchronization circuit to be offset in phase by a predetermined phase angle relative to the first triangular wave signal generated by the first electronic device.

8. The system according to claim 7, wherein

said first through (N-1)st phase synchronization circuits are respectively supplied with different threshold voltages, whereby said slave triangular wave signals are synchronized to be offset in phase relative to

said master triangular wave signal by predetermined phase angles in accord with the respective threshold voltages.

9. The system according to claim 4, wherein said first through Nth electronic devices are dc-ac converters for converting dc power to ac power to supply said ac power.

10. The system according to claim 4, wherein said comparison-detection circuit includes:

a comparator for comparing the level of said master triangular wave signal with said predetermined threshold voltage; and

a change detection circuit for detecting a change in the output of said comparator to output said detection signal when detecting said change.

11. The system according to claim 10, wherein said change detection circuit is a differential circuit having a capacitor and a resistor.

12. The system according to claim 4, further comprising a reference voltage circuit for generating said upper or lower limit voltage and at least one voltage for use as said predetermined threshold voltage.

13. The system according to claim 12, further comprising

a voltage follower that is supplied with said upper or lower limit voltage and outputs the same voltage as the voltage supplied thereto.